AIR TRAFFIC PROCEDURES ADVISORY COMMITTEE
(ATPAC)

SUBJECT: Minutes of the ATPAC 136th Meeting

SUMMARY: The 136th meeting of ATPAC was held on October 6, 2009, at Air Traffic Control Association's 54th Annual Conference at the Gaylord National Resort and Convention Center, National Harbor, Maryland. Representatives were present from ADF, AOPA, APA, NBAA, FAA, COA, NATCA, NPA, ATCA, DoD, IPA, ALPA, and ASRS.

The meeting was called to order by the Chairperson, at 8:38 a.m. on Tuesday, October 6, 2009.

The Executive Director presented his report.

ATPAC meeting #135 minutes were approved through email prior to this meeting. Recurring Agenda Items, IOUs, and applicable AOCs were reviewed and discussed; and the next meeting date and location were established. All business finished, the meeting was adjourned at 1:00PM on October 7, 2009.

AGENDA:

- Call to Order/Roll Call
- Recognition of Attendees
- Executive Director's Report
- Chair Report
- Call for Safety Items
- Review of Agenda Items, Recurring Agenda items, IOUs, Status updates to Areas of Concern (AOC)
- Introduction of New AOCs/Miscellaneous
- Debrief on Pilot/Controller Committee Subgroup
- Executive Directors discussion on NAS Changes
- Locations/Dates for Future Meetings
- Adjournment

TUESDAY, OCTOBER 6, 2009

CALL TO ORDER/ROLL CALL: The Chairperson, called the meeting to order at 8:38 a.m. The Chairperson introduced herself and conducted introductions around the room.

RECONGITION OF ATTENDEES:

Richard Jehlen, Executive Director
Bruce McGray, FAA
Danny Aguerre-Bennett, Chair, ATPAC
Bob Lamond, NBAA
Kerry Rose, FAA
Mike Hilbert, FAA
Mike Frank, FAA
Norm Joseph, ADF
Mark Cato, ALPA
Wilson Riggan, APA
Gary Fiske, FAA
Jim McMahon, FAA
Catherine Shema, FAA
Sabra Morgan, ATCA
Cynthia Deyoe, JVS, AJR-53
Andy Brand, ALPA
Harvey Hartmann, NASA, ASRS
Steve Alogna, FAA
Claire Kultgen, AOPA
Patrick Boyle, ADF
Sydney Tutein, ARMY DoD
Doug Thoman, IPA (new)
Chris Prichett, AOPA
Ben Rich
Stephen Morrison, FAA
Glenn Morse, COA
Bill Stanton, FAA ATSAP

EXECUTIVE DIRECTOR'S REPORT: The Executive Director informed the members that FAA Senior Vice President of Operations, Air Traffic Organization would visit Wednesday morning. The Executive Director proffered his and ATPAC members' thanks to ATCA for assistance in getting the room today. The Executive Director informed ATPAC members that if they are registered lobbyists, they cannot be a member of ATPAC, per GSA guidance.

The Executive Director then discussed the recent ATO re-organization efforts. These efforts are still being worked, but the TMOs/TMCs were reporting to the facility managers beginning October 1, 2009. This reorganization includes creating a new line of business (LOB) consisting of offices that are viewed as shared or enterprise services. These offices include the current Airspace & AIM directorate (Publications, AIM, Airspace and Rules, Environmental, Airspace Management Program, & RNAV/RNP/UAs), the current System Operations Litigation, and the Procedures Development Group (also currently under System Operations). Since ATPAC falls under Procedures, this may be the current Executive Director's last meeting in this capacity. The group was apprised of the new acting VP for Shared Services and Director of En Route Safety and Operations Support group.

The FAA's current budget is in continuing resolution (CR) and Reauthorization is extended thru December. This means there is a hiring freeze and no new starts for FAA.

The members were informed that the new QA order is out and controllers were briefed at facility level on these changes. One of the biggest changes is that a controller doesn't need to be pulled off the operational position if he has an operational error as this was seen to be punitive. The intent of the new QA order is to focus not on the error but on the process that led to the error. Under the new QA order, there will be a fact-based analysis on trend and pre-cursors to prevent future errors.

The NATCA contract was ratified, effective Oct 1, 2009. It is hoped the new contract will contribute to a more relaxed environment in the facilities. Five articles of the contract are still in arbitration. The contract is referred to as the "crimson" or "red book."

CHAIR REPORT: The NATCA contract was signed effective Oct 1, 2009. The group was advised of the new President and Vice President of NATCA. ATSAP Program training has been completed in seven NATCA regions. ATSAP currently has 7,800 reports filed.

> **Action Item**: The Chairperson will try to find out when the next ATSAP representative meeting is being held and send out information to ATPAC members.

APPROVAL OF MEETING #135 MINUTES: The minutes from Meeting #135 were completed approximately 1 week after the close of the meeting, sent out for comment, and approved, following the new process.

Agenda Item: The ALPA member raised the issue that when a pilot calls into a FAA facility, many times they do not know if it is a recorded line.

> **Action Item**: The Executive Director will check on the recorded line issue and report at the next meeting.

CALL FOR SAFETY ITEMS: None presented.

MISCELLANEOUS ITEMS: The AOPA representative informed the group of their new President and Acting Vice President.

REVIEW OF AGENDA ITEMS:

Recurring Agenda Items:

- Wake Turbulence program (Information contained in Pre-Read Briefing) – No discussion.
- Runway Safety (Information contained in Pre-Read Briefing) – No discussion.
- NAVAID Naming Protocol – Previously, the Executive Director asked that the group reach a consensus about whether the current lists out there cause situations to be confusing and problematic enough to justify the effort and resources. Member representatives from NASA, AOPA, FAA ATSAP, and APA were to gather some data to identify the specific problem locations. Palm Springs and Tulsa were discussed as two such trouble areas. The FAA ATSAP representative stated ATSAP had eight or ten items related to this. AOPA stated that this was an issue for their constituents. They will write an article so that members could respond with other sites.

  The Executive Director reminded the group that cost is one of the considerations when looking at making a change. The amount of procedural changes that are tied to the change drives the priority and cost. One of the main issues noted is the controller phraseology. Controllers should state "cleared to XXX NAVAID or airport."

  A possible solution was raised: the FAA should add two sentences to the AIM to alert pilots and controllers at those specific locations that have that problem. The FAA disagreed with this solution.

  Action Item: Recommend PDG write document change proposals (DCP) for FAA Order JO 7110.65, the AIM, and relevant orders to clarify issue surrounding cleared to a fix or an airport and the necessity to say what it is that you're clearing them to. The change initiator (CI) will be the ATPAC Executive Director. It is thought that this will close the AOC. Each ATPAC member should socialize and explain the training issue to controllers and pilots.

  The PDG manager looked at the recommendation to do a DCP regarding this issue and concluded that this DCP would affect several operational elements across the ATO. The PDG will form a workgroup comprised of members of the PDG plus representatives from ATO operations offices to propose language for the DCP. Additionally, the workgroup will coordinate with appropriate safety representatives to see if this change needs an SRMD or an SRMDM. The PDG has a process for DCPs, and this workgroup will research and put the DCP package together. The manager of the PDG will give a status of the findings at the Jan 2010 ATPAC meeting.

  It was proposed that ATPAC formulate a new AOC for three-letter ID naming convention. Bill Stanton gave an example of this problem with the three-letter ID GRR (both an airport and a NAVAID). The Airport is 4.8 NM from the GRR VORTAC. The controller clears aircraft direct GRR rather than airport. This results in incorrect mileage and results in early turns into opposite direction traffic. ATPAC needs a prioritized list. The confusion is in the three-letter identifiers. Strong follow up training action is recommended. Procedures need to be simplified for international and single piloted aircraft. Discussion will continue at the next ATPAC meeting, awaiting the recommendation of the workgroup.

STATUS OF AREAS OF CONCERN: See historical record of AOCs following the agenda.

WEDNESDAY, OCTOBER 7, 2009

FAA Senior Vice President of Operations, Air Traffic Organization, was introduced to the ATPAC members by the Executive Director. The VP opened the discussion by affirming his support for the work that ATPAC does. He then went on to discuss the following items

- Task Force 5 meeting. The VP was impressed by participation and emphasis of the task force on the FAA implementations in the NAS - what was working and what could be delayed. Focus is on Domain areas, especially surface, and the tremendous potential in this area. Initial tests will be at JFK. The FAA needs to communicate that they need to make use of what they have today and to continue to ask how they can leverage technology for the future. They need to be cognizant of providing cost savings under current budget by improving what they do today while at the same time balancing technological improvements implemented in the future
- Dealing with mixed equipage. Does that mean the best-equipped will get best service? How will this be accomplished? The VP replied that ATC service is given to all aircraft, regardless of equipage; however, the ability for aircraft to utilize certain types of approaches at certain airports would certainly depend on that equipage.
- The VP discussed several airports where ADS-B trials are taking place and where the FAA is evaluating capabilities for controllers and pilots with new technologies. ADS-B has four in-service decisions this year. An ADS-B 1 second update will be beneficial. A discussion on this centered around the benefits of ADS-B in LOU, specifically predictability which provides consistent through-put. It was stated this is not going to be solved by FAA alone. Human Factors needs to be leading research. The environmental impact is enormous.

DEBRIEF ON ATPAC PILOT CONTROLLER COMMITTEE SUBGROUP: AJR-53 gave a short recap of the group's progress. Monthly minutes of the meeting are distributed to all ATPAC members as they occur.

EXECUTIVE DIRECTOR'S DISCUSSION ON NAS CHANGES: Did not discuss.

LOCATIONS/DATES FOR FUTURE MEETINGS: Members requested if they know any possible sponsors for ATPAC in the San Diego area to contact AJR with information.

ATPAC #137: January 12th & 13th
Southern California

ADJOURNMENT: The meeting was adjourned on Wednesday, October 7, at 1:00 pm.

Areas of Concern
Table of Contents

AREA OF CONCERN 102-2

01/24/2001

SAFETY: No

SUBJECT: Instrument Approach Clearances to Other than IAF

DISCUSSION: ALPA is still receiving reports that ATC is clearing aircraft direct to intermediate or final approach fixes, and then expecting aircraft to execute a straight-in instrument approach procedure ("IAP"). In fact, with the proliferation of RNAV/GPS IAPs this practice appears to be on the increase.

The instrument approach procedure design criteria do not account for descent gradient or course change factors that occur when aircraft begin an instrument approach procedure on an ad hoc basis. The only exception to beginning an IAP at an IAF is where vectors to the "final approach course" (in accordance with 7110.65, 5-9-1) place the aircraft in the proper position to do a straight-in approach.

When an aircraft is not vectored in accordance with 5-9-1, the aircraft must be cleared over an IAF (or simply "cleared approach" to leave the pilot free at remote locations to do the procedure as required by AIM directives, etc.). Controllers need to be reminded that arrival over an IAF that is not approved on the face of the procedure for "NoPT" requires the pilot to do a course reversal.

The requirements set for in 7110.65, 4-8-1, are intended to apply to all IAP clearances, except for those conducted specifically under the provisions of 5-9-1. In recent discussions with ATP-100 staff, ALPA has learned that some quarters within Air Traffic Services consider Chapter 4 of 7110.65 to apply only to non-radar operations, rather than being the chapter that is the foundation for all IFR operations. Either this needs to be cleared up, or the language of 4-8-1 needs to be restated in Chapter 5.

Further, the language in 4-8-1 that refers to the intermediate fix is confusing, ambiguous, leads to endless speculation, and serves no valid operational purpose.

As protected airspace areas are reduced in RNAV and emerging RNP IAPs, bypassing a designated IAF increases the risk of an aircraft leaving protected airspace and colliding with an obstacle, in addition to the risks of violating turning and descent gradient requirements.

Also, ALPA understands that some controllers believe that the intent of 5-9-1 is satisfied by a clearance direct to an intermediate or final approach fix, followed by a "radar monitor." This is incorrect as it negates the requirement to intercept final at not more than a 20-30 degree angle, and at the appropriate minimum distance from the approach gate.

SUGGESTED ATPAC ACTION: A training bulletin should be issued to all controllers reviewing the intended requirements of 7110-65, 4-8-1. This would include a reminder that this paragraph applies to all IAP clearances except for vectors provided in accordance with 5-9-1. Further, a reminder that the "intent" of 5-9-1 is not satisfied by simply clearing an aircraft directly to an intermediate or final approach fix, then merely observing the aircraft on radar. Finally, a reminder that a clearance for an IAP over an IAF that is not approved for "NoPT" on the face of the chart will require the pilot to execute the prescribed course reversal, thus ATC separation services should be provided with that expectation in mind.

In 4-8-1 the present language "Standard Instrument Approach Procedures shall commence at an Initial Approach Fix or an Intermediate Approach Fix if there is not an Initial Approach Fix…" should be amended to delete reference to the phrase "Intermediate Approach Fix." The only time an approach should begin at an intermediate approach fix is where vectors in accordance with 5-9-1 have been onto the approach course outside of the intermediate fix on a "radar required" IAP that has no IAF's.

(See related agenda item "Vectors to the IAP Course Prior to a Published Segment"). Finally, 4-8-1 should have language that makes it absolutely clear that the provisions of this paragraph apply in both a radar and non-radar environment, excepting only radar vectors provided in accordance with 5-9-1.

102 - Wally Roberts, ALPA, presented the AOC including a November 2000 letter from ALPA to the FAA, which expressed the concern. Executive Director reported that the FAA has drafted a response to the letter and that it is currently in coordination. The committee opted to wait for the FAA's response.

103 - Deferred for discussion at next meeting.

104 - Wally Roberts provided an update to the committee. Concerns were raised regarding the confusion of mixing procedural notes and system requirement (equipment) notes. Additional wording was suggested to distinguish equipment vs. procedure note. ATP and AFS need to jointly work the issue.

> **RECOMMENDATION #1:** Form a FAA workgroup comprised of AFS, AVN, AAT, NATCA, and ALPA to work the issue and provide solutions to the problem.
>
> Flight Standards will take the lead to make this happen.
>
> The Flight Standards representative provided a brief overview of the issue. This is not a site-specific issue and controllers are doing the best with what they have. AVN and AFS will work together with the controllers to determine criteria for TERPS and the impact. A specific fix should not be targeted. Flight Standards takes the responsibility and commitment to work and explore the issue.

105 - Meeting with Wally and AFS to discuss issues has not yet occurred. After the meeting occurs, there will be a decision as to whether or not a workgroup should be formed. Request to review list of attendees and ensure that the proper attendees are there to obtain the desired results/outcome. He will try to have meeting in conjunction with the charting forum.

106—This did not get discussed at the past charting forum. AFS will try to get the parties together before the April meeting.

107 - The Flight Standards representative was unable to attend meeting 107. The AOC will be updated at the July meeting.

108 - FAA has had some internal discussions, but has had some difficulty getting all parties on the phone. Don Porter and Bruce Tarbert, ATP-104, briefed the committee on this AOC. DCP and CBI training are being edited to address GPS equipment and T approach issues. CBI training is targeted for release in September. Product will be presented for review in January and possible implementation in June/July 2003 timeframe.

109 - Bruce Tarbert, ATP-104, briefed the committee. DCPs have been finalized and signed. Training is expected to be out in April 2003, which will include TAA's. Consideration was given to distances from IAF and intercept angle. AVN is looking to see if additional guidance regarding speed is required.

110 - A Draft DCP was submitted to committee for review. A question was raised regarding the "IF (IAF)" notation on the diagram. A briefing will be provided at the next meeting to clarify the concerns.

111 - Some work has been done within Flight Standards, but there has not been a meeting of all the appropriate parties.

112 - AFS-420 workgroup has been formed to write-up a plan and proposed guidance. Development of a controller and pilot training initiative will be addressed. Workgroup's progress will be reported at the next meeting.

113 - AFS representative was unable to attend the meeting and provide an update. Question was raised whether the charting forum was working this issue.

114 - AFS representative was unable to attend the meeting and provide an update.

115 - AFS representative was unable to attend the meeting and provide an update.

116 - AFS representative was unable to attend the meeting and provide an update.

117 - New AFS representative at this meeting. Draft DCP for the AOC has been written. An update will be provided in January.

118 - AFS was unable to attend the meeting, but indicated to the committee that a reenergized effort will be made on this AOC. The committee wanted to emphasize that there had been considerable work done on this AOC by AFS and that there should not be a need to start over again.

Committee wanted to reiterate its recommendations to AFS.

119 - AFS brought up the issue before the Technical Review Board. A review of the ATO-W DCP for vectoring has been completed and was concurred with.

The committee requested for AFS to look at RNAV aircraft on the conventional side.

120 - DCPs are scheduled for publication in February 2006. Question: Would it have application to conventional procedures? ATO-T would have to provide feedback.

> **RECOMMENDATION #2:** Determine/implement this type approach if it can be used by conventional aircraft.

121 - Clarify of Recommendation #2 was discussed and approved. It now reads:

> **RECOMMENDATION #2 (Revised):** Determine/implement this type approach if it can be used by RNAV aircraft on a conventional approach.
>
> ATO-T is still researching this issue with the RNAV office.

122 – RNAV's have ability to go to other than designated IAF. It is published for RNAV on RNAV approach. Our AOC asks whether it can also be for conventional approach. Can the aircraft also meet altitude of IAF? It is there for RNAV. It should also be there for conventional approach. Operationally, this gives the controller more flexibility, less workload, streamlines operations.

This should be presented to RNAV office. ATO-T will draft a DCP.

123 - ATO-T will research and put out appropriate on the recommendation.

124 - ATO-T (Madison) will follow-up on DCP to present to RNAV/RNP Office.

125 - Dave Madison advised that AFS-400 is looking into this AOC and is working the group's concerns. After group discussion, Harry Hodges, Flight Standards, agreed to follow-up and advice ATPAC of status.

126 - Jeff Williams, RNAV/RNP Office, provided an explanation. Discussion at 127 will determine if this is sufficient to satisfy the AOC.

127 - Harry Hodges gave his opinion that RNAV equipped aircraft may proceed to conventional intermediate fixes. Also discussed were the various levels of RNAV capabilities so that all RNAV's are not compatible to accomplish successful navigation during a conventional approach. Jeff Williams was non-committal as to the answer to the AOC but will look into the applications, as was AFS-100. The consensus was that Jeff and David Madison should discuss and resolve.

128 - Discussions centered on the particular equipage of the aircraft. Ben Grimes concurred and will coordinate with RNAV Office to accomplish without SMS.

129 - Don Frenya/Kerry Rose will determine the status of SRMD action and Joe McCarthy will address the issue with ATO-T for reports at 130.

130 - Joe McCarthy will work with ATO-T regarding the SRMD and DCP will check status of DCP.

131 - Agreed that further coordination be done between the RNAV and ATO-T offices to ensure no duplication of effort.

132 - Mr. Jehlen suggested that this AOC should be removed from the minutes and tracked separately to be returned when a resolution is available. This and other items will be removed from the minutes and returned on action dates submitted by the responding office.

133 – Not discussed at this meeting.

134 - Not discussed at this meeting.

135 – There was significant discussion about perceived problem of controllers expecting aircraft to fly straight in but not clearing an aircraft for a straight in approach where a hold in lieu of procedure turn holding pattern is depicted. This is an editorial change since the information is already in an example. Pilot groups want the ability to clear an advanced RNAV aircraft to the intermediate fix on a conventional approach procedure. Currently this can only be done on an RNAV approach. Pilot groups want controllers to only clear aircraft direct to the intermediate fix if the fix is identified on approach charts with the letters "IF." We are also reorganizing the paragraphs in 4-8-2 to make the section less confusing. There are also other questions and items that need to be addressed. These items will be identified but will not be addressed in this AOC. Mike Frank took the action to open a DCP in order to create a definition of "established."

136 – Changes to the manuals have been done by both FAA terminal and RNAV groups. A meeting has been scheduled for Oct 25th and 26th with representatives from pertinent FAA lines of business including ATO Safety, as well as representatives from various industry user groups to discuss this. The outcome of that meeting should resolve AOC 102-2. The meeting is being hosted by the Aeronautical Charting Forum (ACF) - Instrument Procedures Group (IPG). An invitation was extended to any ATPAC member who would like to attend.

CURRENT STATUS: Open

ACTION ITEM: Instrument Approach Clearances to Other than IAF deferred due to terminal discussion.

AREA OF CONCERN 116-1

07/14/04

SAFETY: No

SUBJECT: Revision to FAAO 7110.65 and the AIM

REFERENCES: FAAO 7110.65, paragraph 4-2-5b: NOTE; AIM, Sections 4-4-9g and 5-2-6e7.

DISCUSSION:

The possibility of a misunderstanding between pilots and controllers during the issuance of an ATC clearance has been identified during discussions on the application of "Climb Via" in the RNP/RNAV Phraseology Work Group meetings and should be corrected.

Specifically, in accordance with the references stated above, the use of the term "maintain" when used in conjunction with the initial ATC clearance issued prior to departure *could* be understood to be an amended clearance and have the possible affect of canceling altitude restrictions contained on the Departure Procedure (DPs) issued in the same initial clearance. In considering this issue it is important to remember the following:

- The definition of "maintain" as contained in the P/C Glossary has not changed.
- The application and sequence of the term "maintain," and the omission of previously issued altitude restrictions (including those on published DPs) is the key to understanding the procedure.

Each of the above references refers to a "restating" of the previously issued altitude to "maintain," and the omission of any restrictions contained in a DP that would have applied. When the term "maintain" is used in the initial ATC clearance, *it is not a restatement*, but instead is one of the items included in the basic departure clearance data as contained in FAAO 7110.65, paragraphs 4-3-2 and 4-3-3, and paragraph 4-4-3 of the AIM.

While ALPA believes the possibility of a misunderstanding of the currently accepted procedure is small, ALPA realizes the task of ATPAC is to eliminate any such possibility to the extent possible. Therefore, ALPA recommends the following changes to both the AIM and FAAO 7110.65:

SUGGESTED ATPAC ACTION:

1. Revise FAAO 7110.65, Paragraph 4-2-5-b NOTE to read as follows:

NOTE-
The term "Maintain," when used in issuing an altitude assignment as an item in the initial ATC clearance delivered to an aircraft prior to departure, does not constitute an amended clearance that cancels altitude restrictions issued by ATC or contained on any DP issued as an integral part of the same clearance. The depicted or assigned altitudes apply. However, in subsequent transmissions, restating a previously issued altitude to maintain is an amended clearance. If altitude to "maintain" is changed or restated, whether prior to departure of while airborne, and previously issued altitude restrictions are omitted, altitude restrictions are cancelled, including DP/FMSP/STAR altitude restrictions if any.

2. Revise AIM Paragraph 4-4-9g to read as follows: (New material is in italics.)

g. The guiding principle is that the last ATC clearance has precedence over the previous ATC clearance. When the route or altitude in a previously issued clearance is amended, the controller will restate applicable altitude restrictions. *The term "Maintain," when used in issuing an altitude assignment as an item in the initial ATC clearance delivered to an aircraft prior to departure, does not constitute an amended clearance that cancels altitude restrictions issued by ATC or contained on any DP issued as an integral part of the same clearance. The depicted or assigned altitudes apply. However, in subsequent transmissions, restating a previously issued altitude to maintain is an amended clearance.* If an altitude to "maintain" is changed or

restated, whether prior to departure or while airborne, and previously issued altitude restrictions are omitted, altitude restrictions are cancelled, including DP/FMSP/STAR altitude restrictions if any.

3. Revise AIM Paragraph 5-2-6-e-7 as follows: (New material is in italics)

7. If, *after the initial ATC clearance has been delivered and acknowledged,* an altitude to "maintain" is restated, whether prior to departure or while airborne, previously issued altitude restrictions are cancelled, including any DP altitude restrictions that applied.

Appropriate cross-references should be annotated for each of these changes.

SUGGESTED ATPAC ACTION: That ATPAC review this item and recommend changes to FAAO 7110.65 and the AIM.

116 - Committee expressed differing views on how clearance should be issued. Question: Does maintain cancel restrictions? This may be systemic and more than just an AIM change.

Committee requested to get RNAV and international offices views on the subject. Discussion will be held at October meeting.

117 - Briefing from Bruce Tarbert, RNAV and Don Porter, CSSI. "Climb Via" is a new phraseology procedure being developed by the PCCP workgroup. Comply with Restrictions will be done away with when this is developed. Simulations will be done in the December/January timeframe. It was suggested that the workgroup bring in international to work on the issue together. This would decrease exceptions.

118 - The following information was provided by the RNP Office:

BACKGROUND: As a result of ATPAC's AOC 116-1, and the Committee's recommendation, the RNP Program Office (ATO-R/RNP) tasked the Pilot/Controller Procedures and Phraseology (P/CPP) working group to discuss this issue at its October meeting. The P/CPP was established to address RNAV and RNP implementation issues, and is made up of air traffic, aviation, and union subject matter experts. The P/CPP reviews, assesses and proposes changes to ATC procedures and phraseology and is tasked by the RNP Program Office with incorporating those changes into FAA Order 7110.65, the AIM and AIP.

DISCUSSION: After lengthy discussion the P/CPP came to the following conclusions: if used as prescribed, the phrase "maintain" is clear and unambiguous; that this is an ATC training issue; and to create another "situational" (on the ground vs. in the air) definition for the use of "maintain" would create further confusion.

RECOMMENDATION: ATO-R/RNP concurs with the P/CPP and makes the following recommendations:

1. In the near term, develop a Mandatory Briefing Item (MBI) for ATC facilities that discusses this issue and gives the necessary guidance to correct the problem.

2. Include this issue, complete with a description of the problem and the correct applications and uses for the maintain phraseology, in the next RNAV and RNP Computer Based Instruction (CBI) that is currently under development and due to be completed in March. Distribution to facilities is planned in the June/July timeframe.

3. Make any necessary changes to the appropriate sections of the FAAO 7110.65, the AIM and the AIP to add clarity and emphasis where needed.

Discussion by the committee brought out these points:

- Confusion is on the pilot's part not the controller.
- TB would not address this issue.

- Need to go to the POI's, training schools, etc. to help

Update requested in April to see the definitions.

119 - Update provided by Bruce Tarbert and Don Porter of the RNP office.

Issue "Maintain" initial clearance. Because it has different meanings in different circumstances a training issue has arisen. An ATB article has been drafted and a CBI that addresses the issues is under review. Handbook changes will be look at if necessary.

In initial clearance it is not possible to clear above SID altitudes without canceling prior SID altitudes. Altitude is a legal part of the clearance and has to be included. System Operations is looking at this issue.

120 - The RNAV office was unable to provide an update for the Anchorage meeting. Updated status will be provided in October.

121 - Update provided by Don Porter of the RNAV Office. There are several issues with "maintain" in SIDs and STARs. It is a problem for both pilots and controllers. A better definition may need to be looked at by Don's group. One solution is to insert waypoint to define altitude. (Ex. "Descend via Baxter1, after Laady maintain 080.") Meaning should be the same in the air as on the ground. Training issues are forthcoming.

122 - "Descend via" has been in the book for a year and not all know about it. Lots of ASRS reports on the confusion. "Maintain" also causing confusion, including while aircraft are descending. Issue – With a restriction on SIDs/STARs does "maintain" cancel restriction? Yes. The above issues need to be given to Don's group. Training is a must. There needs to be a basis understanding. Also, suggest an ATB on phraseology. Issue of ICAO harmonization also needs to be addressed.

123 - The RNAV office representative was unable to attend this meeting and will be invited to meeting 124.

124 - Per Bruce Tarbert, RNAV/RNP Office, Don Porter is working on the draft DCP.

125 - A DCP will be developed and put into process by Dave Madison, ATO-T, who will also coordinate with Flight Standards.

126 - Dave Madison was unable to attend and report on this AOC.

127 - This item was not discussed due to time constraints.

128 - ATPAC recommendations were submitted and discussed. Ben Grimes advised a change to the PCG has been issued. A DCP has been issued by ATO-T with ATPAC recommendations.

129 - Joe McCarthy was brought up to speed on this issue and will report on progress at

130 - Joe will discuss with ATO-T and report at 131.

131 - Scott Casoni advised the referenced paragraphs do not exist. Discussion was that a recommendation from ATPAC remains to obtain clarification of terms regarding "maintain." Kerry Rose will contact the RNAV office in order to connect with the PARC's phraseology group so as to establish a connection with the groups, charters, and processes.

132 - Mr. Hilbert (RNAV/RNP Office) provided answers on SRM panels and DCP coordination. It was suggested that an ATPAC tracking system (through publication) be established on some of these items. It will be taken off future ATPAC meeting minutes and placed in a "side template" showing due date of 3/11. This remains open and all items should be completed and reported in the next meeting. Mr. Jehlen suggested that this AOC should be removed from the minutes and tracked separately to be

returned when a resolution is available. This and other items will be removed from the minutes and returned on action dates submitted by the responding office.

RECOMMENDATION 1a: In the near term, develop a Mandatory Briefing Item (MBI) for ATC facilities that discusses this issue and gives the necessary guidance to correct the problem.

1. Include this issue, complete with a description of the problem and the correct applications and uses for the maintain phraseology, in the next RNAV and RNP Computer Based Instruction (CBI) that is currently under development and due to be completed in March. Distribution to facilities is planned in the June/July timeframe.

2. Make any necessary changes to the appropriate sections of the FAAO 7110.65, the AIM and the AIP to add clarity and emphasis where needed.

RECOMMENDATION 2: AOC 116-1 discussed in-depth the issues involving the application of the term "Maintain". However, a review of the AOC revealed that an important additional item should be added to the suggested ATPAC action in that AOC. That is, the addition of a third application of the term "maintain" in the Pilot/Controller Glossary. This is necessary because the current definition does not address the issue of the term's meaning when applied in amended clearances, and that is a source of the existing problem.

For reference: Maintain is currently defined in the Pilot/Controller Glossary as:

a. Concerning altitude /flight level, the term means to remain at the altitude/flight level specified. The phrase "climb and" or "descend and" normally precedes "maintain" and the altitude assignment; e.g., "descend and maintain 5,000."

b. Concerning other ATC instructions, the term is used in its literal sense; e.g., maintain VFR"

The following is proposed as a revision to the above definition of "maintain" as it now exists. The new material is in italics:

a. Concerning altitude /flight level, the term means to remain at the altitude/flight level specified. The phrase "climb and" or "descend and" normally precedes "maintain" and the altitude assignment; e.g., "descend and maintain 5,000."

b. *Concerning the use of the term in amended clearances prior to or after departure. If altitude to "maintain" is changed or restated in the amended clearance, and previously issued altitude restrictions are omitted, altitude restrictions are cancelled, including FMSP/STAR altitude restrictions if any.*

c. Concerning other ATC instructions, the term is used in its literal sense; e.g., maintain VFR"

133 - Not discussed at this meeting. Mr. Jehlen suggested that this AOC should be removed from the minutes and tracked separately to be returned when a resolution is available. This and other items will be removed from the minutes and returned on action dates submitted by the responding office.

134 - Not discussed at this meeting.

135 - Not discussed at this meeting. Update provided by Mike Hilbert before meeting and sent out in Pre-read briefing – SRM panel met; SRMD in development, estimated publication of change in FAA Order JO 7110.65, the AIM, and the AIP is February 11, 2010.

136 - Not discussed at this meeting. Update provided by FAA AJR-37 before meeting and sent out in Pre-read briefing– estimated publication of change in FAAO JO 7110.65, AIM, and AIP has been pushed back until July 29, 2010.

CURRENT STATUS: Open, Deferred to Meeting #140

ACTION ITEM: AJR-37 assigned to draft changes to FAA Order JO 7110.65, AIM, AIP, and Pilot/Controller Glossary on departure instructions to maintain.

AREA OF CONCERN 116-3

07/14/04

SAFETY: No

SUBJECT: ILS Glide Slope Critical Area Advisory

REFERENCE: AIM 1-1-9k2(b)(2)

DISCUSSION: The above referenced paragraph in the AIM does not accurately reflect what terminology pilots should use when advising ATC they will conduct a coupled/autoland approach when the weather is above 800-2. The example used in the paragraph ***"Glide slope signal not protected"*** is an advisory that would be issued by the control tower in response to pilot notification of a coupled approach.

Another issue contained in this paragraph that ATPAC needs to discuss is that the ILS critical areas are only protected when the aircraft is inside the middle marker (MM). Considering the fact that MM's are located approximately 3500ft from the runway threshold, which is entirely too short a distance to be useful for such approaches, and they are being removed at the majority of locations, it appears necessary to replace the term MM in this paragraph with "Final Approach Fix (FAF)." This would be in line with the Glide Slope Critical Area comments contained in AIM paragraph 1-1-9k2.

The use of coupled/autoland approaches has become more common with the fleet of highly automated aircraft operating in the inventory, and the ILS critical area requirements need to be updated to reflect this fact.

SUGGESTED ATPAC ACTION: That ATPAC discuss this issue and recommend the following:

1. That the pilot advisory example contained in the above referenced AIM paragraph be replaced with the following sample advisory:

PHRASEOLOGY-
[Name of tower] [Call sign] [coupled/autoland] APPROACH

2. That the term MM contained in the above referenced AIM paragraph be replaced with the term **FAF** or **OM**, whichever is the most appropriate.

116 - MSP has a glideslope critical area issue with a certain taxiway. Many aircraft use the coupled approach most of the time. Comment that when issuing ILS procedures it should be known that the aircraft is coupled without having to broadcast it on the frequency. This will be a capacity issue because aircraft must be certified to "autoland." If not certified, they can't fly CATIII. AFS needs to be involved in this issue.

RECOMMENDATION #1:

1. That the pilot advisory example contained in the above referenced AIM paragraph be replaced with the following sample advisory:

PHRASEOLOGY-
[Name of tower] [Call sign] [coupled/autoland] APPROACH

2. That the term MM contained in the above referenced AIM paragraph be replaced with the term FAF or OM, whichever is the most appropriate.

117 - Office of Primary Interest (OPI) has been contacted. Committee will be provided status when available.

118 - There was concern that the OPI would understand the issues being addressed and would make the proper handbook changes. The OPI will be contacted and a discussion will be held at the next meeting.

119 - 800&2 and below is protected, not above. If there is no compelling evidence then policy should not be changed. Possibly change 7210.3 to designate a runway for autoland approaches to CAT II/III runways. Alternate is maintenance recertification.

RECOMMENDATION #2: That the FAA ATO develop guidance to achieve the following: FAA Order 7210.3, Facility Operation and Administration, should be changed to have terminal facilities with CAT II or CAT III approaches include procedures to accommodate "coupled" or "autoland" operations per FAA Order 7110.65, 3-7-5b to include protecting the critical area. This should include controller awareness of the need to accommodate these operators and may include designating a preferred runway and arrival procedures for these operations.

120 - Several ideas were provided on this AOC:

- Consider designating autoland/coupled approach runways as per Recommendation #2.
- Provide more education to controllers.
- Obtain development help from Anchorage office (Motzko).
- Certification could relax the 90 day requirement for autoland/coupled approaches.
- Determine which airports could dedicate a runway for these approaches.

AT and AF will work on the dedicated runway issue.

RECOMMENDATION #3: Synchronize the AIM to the 7110.65/PCG definition of ILS Critical Area.

121 - Instruction issued to controllers to issue and protect the approaches when able. ATO-T said there is no need for having airports dedicate runways for this purpose. Airports need to be aware of the need and accommodate as much as possible.

122 - Article in ATB regarding facility's handling coupled/autoland approaches. There are 2 issues. Autopilot cert. issues and flying coupled because ops. Specs. /company require it. If the critical are is unprotected the pilot is out on a limb. There is a disconnect between certification, AFS, AT, and the POIs.

RECOMMENDATION #1 (Revised Part 1): That the pilot advisory example contained in the above referenced AIM paragraph be replaced with the following sample advisory:

PHRASEOLOGY-
[Call sign] AUTOLAND or COUPLED APPROACH.

Add: The tower will advise if the ILS critical areas are not protected with the following sample advisory: *ILS critical areas not protected.*

123 - Comment that ATC is not aware of the requirements for autoland/coupled approaches. Would an ATB article help address this issue? AFS could look at the requirements because they are the ones that impose them.

ATO-T will work Recommendation #1 and the chair will provide draft language for Recommendation #3. As previously reported, Recommendation #2 will not be implemented.

124 - Common language was defined by the group and will be submitted. Mark Cato will write an article for pilots and Flight Standards highlighting the committee's new thinking on the

coupled/autoland issue and Harry will consider that as a starting point for coordination for an HBAT item. Also, Dave and John will develop a DCP to reflect the following ATPAC recommendations:

Recommended changes included deleting references to Autoland in Coupled Definition and Coupled in Autoland Definition.

AUTOLAND APPROACH - An autoland approach is a precision instrument approach to touchdown and, in some cases, through the landing rollout. An autoland approach is performed by the aircraft autopilot which is receiving position information and/or steering commands from onboard navigation equipment.

NOTE-
Autoland approaches are flown in VFR and IFR. . It is common for carriers to require their crews to fly autoland approaches (if certified) when the weather conditions are less than approximately 4,000 RVR.

COUPLED APPROACH - A coupled approach is an instrument approach performed by the aircraft autopilot which is receiving position information and/or steering commands from onboard navigation equipment. In general, coupled nonprecision approaches must be discontinued and flown manually at altitudes lower than 50 feet below the minimum descent altitude, and coupled precision approaches must be flown manually below 50 feet AGL.

NOTE-
Coupled approaches are flown in VFR and IFR. . It is common for carriers to require their crews to fly coupled approaches (if certified) when the weather conditions are less than approximately 4,000 RVR.

7110.65 Recommended change

3-7-5. PRECISION APPROACH CRITICAL AREA

b. Air carriers commonly conduct "autoland" operations to satisfy maintenance, training, or reliability program requirements. Promptly issue an advisory if the critical area will not be protected when an arriving aircraft advises that an **"**autoland" approach will be conducted and the weather is reported ceiling of 800 feet or more, and the visibility is 2 miles or more.

Recommended change includes flight crew notification to Approach Control

AIM 1-1-9k2

k. ILS Course Distortion

1. All pilots should be aware that disturbances to ILS localizer and glide slope courses may occur when surface vehicles or aircraft are operated near the localizer or glide slope antennas. Most ILS installations are subject to signal interference by surface vehicles, aircraft or both. ILS CRITICAL AREAS are established near each localizer and glide slope antenna.

2. ATC issues control instructions to avoid interfering operations within ILS critical areas at controlled airports during the hours the Airport Traffic Control Tower (ATCT) is in operation as follows:

(a) Weather Conditions. Less than ceiling 800 feet and/or visibility 2 miles.

(1) Localizer Critical Area. Except for aircraft that land, exit a runway, depart or miss approach, vehicles and aircraft are not authorized in or over the critical area when an arriving aircraft is between the ILS final approach fix and the airport. Additionally, when the ceiling is less than 200 feet and/or the visibility is RVR 2,000 or less, vehicle and aircraft operations in or over the area are not authorized when an arriving aircraft is inside the ILS MM.

(2) Glide Slope Critical Area. Vehicles and aircraft are not authorized in the area when an arriving aircraft is between the ILS final approach fix and the airport unless the aircraft has reported the airport in sight and is circling or side stepping to land on a runway other than the ILS runway.

(b) Weather Conditions. At or above ceiling 800 feet and/or visibility 2 miles.

(1) No critical area protective action is provided under these conditions.

(2) A flight crew, under these conditions, should advise the approach control, "(Call sign), autoland approach." to request that the ILS critical areas are protected.

EXAMPLE-
Glide slope signal not protected.

(Note added)

NOTE-
Aircrews navigating a precision or non-precision approach other than autoland by engaging the autopilot should not expect critical area protection if the weather is at or above ceiling 800 feet and/or visibility 2 miles.

3. Aircraft holding below 5,000 feet between the outer marker and the airport may cause localizer signal variations for aircraft conducting the ILS approach. Accordingly, such holding is not authorized when weather or visibility conditions are less than ceiling 800 feet and/or visibility 2 miles.

4. Pilots are cautioned that vehicular traffic not subject to ATC may cause momentary deviation to ILS course or glide slope signals. Also, critical areas are not protected at uncontrolled airports or at airports with an operating control tower when weather or visibility conditions are above those requiring protective measures. Aircraft conducting coupled or autoland operations should be especially alert in monitoring automatic flight control systems. (See FIG 1-1-7.)

NOTE-
Unless otherwise coordinated through Flight Standards, ILS signals to Category I runways are not flight inspected below 100 feet AGL. Guidance signal anomalies may be encountered below this altitude.

125 - The ATPAC recommendation was validated and will be forwarded for action by ATO-R.

126 - Dave Madison was unable to attend this meeting for ATO-T.

127 - Ben Grimes will check into the status of this recommendation and report at 128.

128 - Ben Grimes advised the committee that ATO-T non-concurred with the recommendation.

129 - Discussions were centered on the committee's desire to resolve what they perceived to be a critical flight issue that should be addressed.

130 - Wilson Riggan will provide a memorandum for submission to ATO-T through Kerry Rose.

131 - It was determined that FAAO 7110.65 had been changed to reflect the ATPAC recommendation leaving only the AIM to be addressed by this proposed change in Para 1-1-9k2.

132 - Flight Standards controls AIM information and will be asked to match the 7110.65 entries.

133 - Kerry Rose asked if this is still valid or is it an interpretation request? Kerry Rose talked about the future members coming to the PDG that would resolve this issue. *AJR-53 for action upon arrival of newly assigned personnel.*

134 - Scott Casoni reported that this change was in process. No further discussion.

135 - Some of the recommended changes have been made in FAA Order JO 7110.65 but not all. Corresponding changes in the AIM and AIP were never made. It was determined that we would work this through the Procedures Development Group (PDG), and after reading all the recommendations, the group would draft the changes for all three publications and run them through ATPAC for agreement via email or a telcon. If it is agreed on, we would write up the corresponding DCPs and make the changes.

136 – APA member requested that a DCP be written to change FAA Order JO 7110.65 to include notification to the tower by the pilot about why they are requesting ILS Critical Area be protected. The reason is that pilots need to stay current and it is a very long, costly process to accomplish this on the ground. APA requested that positive phraseology be added to indicate approval request.

CURRENT STATUS: Open, deferred until ATPAC #140.

ACTION ITEM:

1. ATPAC Executive Director will send in a Change Initiator (CI). AJT will complete the DCPs to update FAA Order JO 7110.65, the AIM, and the AIP.

2. APA to write up (at the request of the Executive Director) an educational packet explaining what the need and fleet implications are for operators if they are unable to complete their mandatory certification needs. This will be distributed to appropriate FAA offices for additional controller training consideration.

AREA OF CONCERN 117-1

10/05/04

SAFETY: No

SUBJECT: Definition of the term "Airborne"

DISCUSSION: Pilot reports to ALPA have made us aware that some ATC Towers are applying an unusual definition of "airborne." The definition being used is that an aircraft is "airborne" when the aircraft rotates and the nose wheel comes off the ground. The significance of the definition relates to an aircraft landing or departing behind another aircraft that is departing from the same runway. FAA Order JO 7110.65, paragraphs 3-9-6 and 3-10-3, Same Runway Separation, permit controllers to apply minimum distances between succeeding arriving or departing aircraft if the controller can determine distances by reference to suitable landmarks and the other aircraft is airborne.
The "rotation" concept is used to enhance capacity, according to one tower support specialist. This is based on the idea that, at least in the case of Category III aircraft, the aircraft is beyond the maximum abort speed and the takeoff will occur. Another stated reason was that an arrival aircraft will not touch down immediately after crossing the landing threshold and the other aircraft will be "in the air," i.e., all parts of the aircraft separated from terra firma, before the arrival touches down.

SUGGESTED ATPAC ACTION: Discuss the need for including a definition of airborne in the Pilot/Controller Glossary and make an appropriate recommendation.

117 - Pilot feel they are being pushed too much and it is a safety issue. Comment made that pilot learn they can't cross the threshold with another aircraft on the runway. Suggested possible solutions were MBI, procedures telecon for discussion. Update will be provided when available.
118 - What exactly defines airborne? Nose wheel off, all wheels off? Should this be standardized and publicized? One member indicated that a number of court cases said it should be "all wheel off." It was noted that if it is "all wheels," then capacity would be affected. Noted that pilots would be concerned with the legality of "should they have made the landing."
Discussion posed solution of an ATB, a PCG changes, etc.

> **RECOMMENDATION #1:** A definition of "Airborne" should be put in the Pilot Controller Glossary.

119 - AFS has not finalized the definition. Draft DCP will be provided when available.

120 - ATO-T's consensus is that the definition should be when "all wheels are off the ground." Memo sent to AFS-200 on whether they agree with ATO-T.

121 - ATO-T feels that all wheels off the ground is airborne. An MBI is under draft. Should we be validating this first? How does AFS define airborne? Can we assume that current practices have acceptable risk? Recommendation that this issue be tabled until an SMS analysis and evaluation/study can be accomplished.

122 - ATO-T says the definition is wheels off the ground. Recommendation #1 will be implemented.

123 - ATO-T provided language for the new definition, which will go out for comment. Question was raised about looking into the possibility of changing the language to be "nose wheel off." Perhaps a safety study/risk assessment can be done that will allow some form (e.g. category of aircraft) of this application. ATO-T will research this question through AFS.

124 - This recommendation in SRM process now with AOV per Dave Madison.

125 - AOV is still in the process of determining if the raising of the nose wheel alone meets safety requirements.

126 - This item was not discussed at this meeting. Steve Alogna will check into status and report at Meeting # 127.

127 - The status of this item was not determined.

128 - A DCP is being circulated defining "airborne" as all parts of the aircraft off the runway.

129 - Discussion was that this item is in DCP status or in-line for an SRMD.

130 – Jesse Gaines advised via email that DCP is still active but not complete.

131 - The recommended action from ATPAC to define airborne has been concluded as being all parts of the aircraft must be in the air.

> **RECOMMENDATION #1:** A definition of "Airborne" should be put in the Pilot Controller Glossary.

132 – Ms. Rose reported that the publication date for this change was missed and will be picked up in the next cycle.

133 -

134 -

135 – This AOC had been closed in anticipation of it getting published. However, when final package went out, it came back with comments and concerns so it was not published. It was decided that this will be reopened until the final comments on the DCP have come back from AVS. Bruce McGray from AFS feels there is already a definition of Airborne, and has taken the action item to produce it

136 – Not discussed at this meeting. Update provided prior to meeting and sent out in Pre-read briefing. Change to FAA Order JO 7110.65 will be published in the February 11, 2010 edition.

CURRENT STATUS: Open, Deferred until ATPAC #138.

AREA OF CONCERN 123-2

04/19/06

SAFETY: No

SUBJECT: Aircraft Vertical Performance Data

DISCUSSION: Paragraph 4-4-9d of the AIM contains broad guidance for pilots relating to aircraft descent and climb rates. Specifically; the second sentence of the paragraph begins with the words "*Descend or climb at an optimum rate consistent with the operating characteristics of the aircraft……"* This phrase is all encompassing and does adequately recognize that specific climb and descent performance criteria is largely controlled by flight management system vertical guidance programs, aircraft type, and specific operator procedures. Therefore, specific performance criteria are not included in the paragraph, nor are there any regulatory requirements relating to this subject. Most pilot operations manuals only contain information extracted from paragraph 4-4-9 relating to a requirement to notify ATC if a climb or descent of at least 500ft per minute cannot be sustained.

However, Appendix A of FAA Order 7110.65 contains climb and descent figures for most aircraft operating in the ATC system. If the purpose of this information is to provide controllers guidance on what performance they may expect from aircraft they are controlling, they may be working with erroneous data. Also, Note 2 of paragraph 4-5-7e of FAA Order 7110.65, refers to descent rates contained in the AIM: "Controllers *need to be aware that the descent rates in the AIM are only suggested and aircraft will not always descend at those rates."* ALPA believes that this paragraph was originally intended to refer to the performance figures contained in Appendix A of 7110.65, as there does not appear to be any correlation to what is contained in the AIM.

SUGGESTED ATPAC ACTION: That ATPAC review this information and recommend that Note 2 of paragraph 4-5-7e, FAAO 7110.65 either be deleted or changed to pertain to the data contained in Appendix A of the Order, and, that the data contained in Appendix A be reviewed to insure it reflects the most accurate and complete performance information for controller guidance.

123 - Chart needs to be updated or removed. Each chart is based on certification. How pilots fly it can be different. Appendix redone when LAHSO was being worked. ATO-T will coordinate with Certification, then evaluate whether chart should remain.

124 - ATO-T will coordinate with Certification then evaluate whether chart should remain.

125 - Due to insufficient time for the appropriate discussions this AOC will be further deferred until 126.

126 - The current status of this item is unknown and should be worked by ATO-T.

127 - This item's status remains unreported.

128 - Ben Grimes reported that this item will be discussed at an August meeting and a determination will be made to revise, eliminate climb characteristics, and/or eliminate the table.

129 - This item was again discussed as needing updating or cancellation because it is not current with aircraft performance.

130 - A report received via email advised that a panel has been convened to discuss this item as it relates to ICAO directives.

131 - Various groups are being polled with the intent to determine their use of the .65 appendix with a goal to determine if the chart is valid enough to continually update or eliminate for controller use.

RECOMMENDATION: Chart needs to be updated or removed.

132 - AJR-53 now taking this on as action. Remains open (deferred for two meetings) and placed in a side template showing due date of Mtg #135. Mr. Jehlen suggested that this AOC should be removed from the minutes and tracked separately to be returned when a resolution is available. This and other items will be removed from the minutes and returned on action dates submitted by the responding office.

133 - Not discussed at this meeting. Mr. Jehlen suggested that this AOC should be removed from the minutes and tracked separately to be returned when a resolution is available. This and other items will be removed from the minutes and returned on action dates submitted by the responding office.

134 - Not discussed at this meeting.

135 - There are two parts to the AOC. Part 1 involves incorrect, outdated information in the climb tables. Bruce McGray, AFS, has taken action to identify correct information so that it may be put into the tables. Part 1a - Proper information, when received, will then be incorporated into appropriate area. Part 2 involves personnel being erroneously directed from FAA Order JO 7110.65 (paragraph 4-5-7e Note 2) to the AIM (paragraph 4-4-10d) for guidance; this error is planned to be changed in the next update in February.

136 – FAA AJT- 22 will write changes and submit to PDG. The Safety study and AFS-400 documents will be part of package.

CURRENT STATUS: Part 1 – Open
Part 2 – Deferred until ATPAC #137
Part 3 – Deferred until ATPAC #138

ACTION ITEMS:

Part 1 - FAA AFS-400 to finalize internal coordination on who will generate content for the tables OR identify which data is acceptable to populate tables with. On hold due to on-going discussions with AFS-401 in October. AFS-400 mentioned that they will request Janes as the standard.

Part 2 - Proper information will then be incorporated into appropriate area.

Part 3 - FAA will make corrections to parts of the FAA Order JO 7110.65 that erroneously send people to AIM for information which does not exist there.

AREA OF CONCERN 123-4

04/19/06

SAFETY: No

SUBJECT: Speed Assignment Procedures for Arriving Aircraft

DISCUSSION: Neither FAA Order 7110.65 nor the AIM contains clear guidance for controllers or pilots relating to airspeed management during STAR/RNAV arrivals. Specifically, when airspeed is issued by ATC for sequencing, it is not clear when a pilot may reduce that airspeed in order to comply with regulatory airspeeds contained at fixes depicted on the arrival chart. While specific procedures relating to altitude management during such arrivals are included in both publications, the same type of guidance for airspeed management is not. Pilot reports and local procedures implemented by an FAA Center confirm this problem.

ALPA believes this issue can be resolved by revising FAAO 7110.65, Para 5-7-2, and AIM section 4-4-11 as follows:

7110.65, Para 5-7-2: Add sub paragraph **e** as follows:

e. If a STAR/arrival procedure is issued after a speed assignment, pilots will be expected to comply with speed restrictions contained on the published arrival procedure. If ATC assigns a speed for sequencing **after** a STAR or other transition arrival procedure has been issued, pilots are expected to maintain that speed until further advised.

It is the controller's responsibility to ensure speed assignments are managed to allow pilot compliance with 14 CFR Section 91.117."

AIM section 4-4-11: Add new paragraph **f.** as follows and adjust remaining subparagraphs alphabetically as required: The existing **NOTE** following the current paragraph 4-4-11e, Example 2, should now follow the proposed paragraph **f.**

f. When a STAR/RNAV transition is issued **after** a speed assignment, pilots should comply with speed restrictions contained on the published arrival. If ATC assigns the speed **after** the clearance for a published arrival procedure, pilots are expected to maintain that speed until further advised.

SUGGESTED ATPAC ACTION: That ATPAC review this issue and consider approving the above recommendations.

123 - Controllers assign what they need and are aware of the restrictions on the procedures. Discussion on DFW arrivals and constraints on route in relation to speed. Needs to be education of both pilots and controllers.

RECOMMENDATION #1: Add appropriate notes to the AIM and the 7110.65.

124 - ATPAC further refined its recommendation as follows:

7110.65, Para 5-7-2: Add sub paragraph **e**. as follows:

e. "When a SID/STAR is issued after a speed assignment, pilots will comply with speed restrictions contained on the published procedure. When a speed is assigned **after** a SID/STAR has been issued, pilots will maintain that speed until further advised.

It is the pilot's responsibility to ensure speed assignments are managed to permit compliance with 14 CFR Section 91.117.

AIM section 4-4-11: Add new paragraph **f.** as follows and adjust remaining subparagraphs alphabetically as required: The existing **NOTE** following the current paragraph 4-4-11e, Example 2, should now follow the proposed paragraph **f.**

f. When a SID/STAR is issued **after** a speed assignment, pilots will comply with speed restrictions contained on the published procedure. When a speed is assigned **after** a SID/STAR has been issued, pilots will maintain that speed until further advised.

125 - Due to insufficient time for the appropriate discussions this AOC will be further deferred until 126.

126 - This item was not reviewed at 126. Steve Alogna will check status and report at Mtg #127.

127 - This AOC was discussed however further coordination was needed.

128 - David Young will coordinate with Ben on an existing proposal with a goal to satisfy this AOC.

129 - Clarification of the status of this item is needed.

130 - ATO-T advised that the current directives are sufficient. David Young will revisit issue with ATO-T and report findings at #131.

131 - Richard Kagehiro, ATO-E, advised that the RNAV office has developed a draft DCP and is in the process of impaneling an SRM group. Larry Newman advised that the PARC had developed phraseology to address the issue.

132 - Completion dates submitted on their work plan. Remains open (deferred for two meetings) and placed in a side template showing due date of Mtg #135. Mr. Jehlen suggested that this AOC should be removed from the minutes and tracked separately to be returned when a resolution is available. This and other items will be removed from the minutes and returned on action dates submitted by the responding office.

RECOMMENDATION: Add appropriate notes to the AIM and the 7110.65.

133 - Not discussed at this meeting. Mr. Jehlen suggested that this AOC should be removed from the minutes and tracked separately to be returned when a resolution is available. This and other items will be removed from the minutes and returned on action dates submitted by the responding office.

134 - Not discussed at this meeting.

135 - Not discussed at this meeting. Update provided by Mike Hilbert prior to meeting and sent out in Pre-read – SRM panel met; SRMD in development, estimated publication change in FAAO JO 7110.65, AIM, and AIP is February 11, 2010.

136 - Not discussed at this meeting. Update provided by AJR-37 prior to meeting and sent out in Pre-read – estimated publication of change in FAAO JO 7110.65, AIM, and AIP has been pushed back until July 29, 2010.

CURRENT STATUS: Deferred to ATPAC #140

ACTION ITEMS: AJR-37 will submit changes to FAAO JO 7110.65, AIM, and AIP to incorporate appropriate recommendations.

AREA OF CONCERN 123-6

04/19/06

SAFETY: Yes

SUBJECT: Precision Obstacle Free Zone (FAA Order 7110.65, Paragraph 3-7-6)

DISCUSSION: The procedure is not realistic and is a definite safety hazard. The only realistic control instruction is: "Go around." You can't expect the pilot to adjust his minima this late in the approach.

SUGGESTED ATPAC ACTION: That ATPAC recommend that the FAA rescind this paragraph immediately through a GENOT and direct controllers to issue go-around instructions if the POFZ is not clear.

123 - The committee expressed concern that the dimensions and activity in this "zone" may change on short final and change the actual minimums for the approach that may be contrary to the operator's.

ATO-T will work the issue through a GENOT and report to the committee in July.

124 - The paragraph in question was rescinded by GENOT at the committee's request. ATPAC will investigate status with NCAR.

125 - Due to insufficient time for the appropriate discussions this AOC will be further deferred until 126.

126 - Subsequent to the meeting this item was published by ATO-T despite objections by ATPAC whose members recommended a controller initiated go around when conditions warranted and traffic was in the POFZ.

127 - This item was not addressed due to time constraints.

128 - This item was tabled and not re-addressed.

129 - The committee agrees that this issue needs to be addressed as it might place the aircraft in dangerous proximity to hazards without sufficient time for prudent reaction.

130 - Wilson maintains the IOU to complete a proposal for an MBI.

RECOMMENDATION: Controller initiated Go Around. *The FAA has identified an area near the runway which must be kept clear of ground traffic in low IFR conditions (300-3/4) in order to maintain the Target Level of Safety (TLS) with respect to the approaching aircraft. This area is defined as the Precision Obstacle Free Zone (POFZ). The subject of this AOC is to address the issue of what the controller and pilot actions should be in the unlikely event of a POFZ transgression. The ATPAC held extensive discussions on this issue, including briefings from Flight Standards risk analysis personnel and input from various airline, pilot, and controller groups, as well as Air Traffic Terminal and Systems Operations representatives. The distance of approximately ¾ mile out on final was identified as the longitudinal location at which the approaching aircraft's collision risk with the encroaching ground traffic has increased beyond the TLS. If the approaching aircraft goes around prior to that point, it never enters the dangerous zone and thus its risk never exceeds that limit. Alternatively, once passing that point, going around creates the very risk we seek to avoid due to the potential for lateral drift and drift-down during the go-around procedure.*

ATPAC believes the recommended actions below will provide pilots and controllers with an effective and easily understood mitigation to a POFZ violation and ensures maximum protection of the POFZ up to but not beyond the point where the Target Level of Safety becomes negatively impacted by the execution of a "go around."

***ATPAC recommends that the FAA take the following actions**:*

- Identify the point on the approach beyond which the TLS is no longer supported if the aircraft goes around due to an object infringing on the POFZ.

- The identification of this point on approach must consider human factors data so as to allow for the communication of a "go around" instruction and the pilot's reaction time for initiating the procedure. From our discussions with Flight Standards, we believe that point will be approximately one mile out on final.

- Once this point is identified, the FAA should develop procedures which will ensure that one of the following two actions occur:

- If an aircraft is outside the identified point on approach and an object (aircraft, vehicle, etc.) violates the POFZ, the controller issues "go around" instructions to the aircraft on approach.

- Or, if an aircraft on approach has passed that point and an object violates the POFZ, the controller does not issue "go around" instructions, but reverts to existing ILS Critical Area / Runway Incursion procedures.

- As this procedure may appear counter-intuitive, include a "note" to the procedure In JO 7110.65S explaining the purpose of this change.

131 - Wilson presented a draft of the ATPAC recommendation for submission to ATO-T for their action.

132 - Change in manpower within ATO Terminal halted further research and forced reassignment. Mr. Jehlen suggested that this AOC should be removed from the minutes and tracked separately to be returned when a resolution is available. This and other items will be removed from the minutes and returned on action dates submitted by the responding office.

133 - Change in manpower within ATO Terminal halted further research and forced reassignment. Kerry Rose talked about the future members coming to the PDG that would resolve this issue. Remains in "side template."

134 - Not discussed at this meeting.

135 - Mike Frank of Terminal had the IOU on this. He said that his information indicated that this had been changed. Wilson Riggan pointed out that the change – "***c.** If it is not possible to clear the POFZ or OCS prior to an aircraft reaching a point 2 miles from the runway threshold and the weather is less than described in subparas a or b above, **issue traffic to the landing aircraft".*** was not what the recommendation had asked for and was basically of no use to the pilot. The original recommendation stated. *- Identify the point on the approach beyond which the TLS is no longer supported if the aircraft goes around due to an object infringing on the POFZ.*

- The identification of this point on approach must consider human factors data so as to allow for the communication of a "go around" instruction and the pilot's reaction time for initiating the procedure. From our discussions with Flight Standards, we believe that point will be approximately one mile out on final.

- Once this point is identified, the FAA should develop procedures which will ensure that one of the following two actions occur:

- If an aircraft is outside the identified point on approach and an object (aircraft, vehicle, etc.) violates the POFZ, the controller issues "go around" instructions to the aircraft on approach.

- Or, if an aircraft on approach has passed that point and an object violates the POFZ, the controller does not issue "go around" instructions, but reverts to existing ILS Critical Area / Runway Incursion procedures.

- As this procedure may appear counter-intuitive, include a "note" to the procedure In FAAO JO 7110.65 explaining the purpose of this change.

It was also brought up that this could enter a lengthy SMS process if needed. It was mentioned that if data were already there to support the POFZ that the SRM would probably not be needed.

136 – FAA AJT-22 to write up DCP which will include safety study and AFS-400 documents.

CURRENT STATUS: Open

ACTION ITEM: AJT-22 to write up DCP which will include safety study and AFS-400 documents.

AREA OF CONCERN 123-7

04/19/06

SAFETY: Yes

SUBJECT: Four Digit Express Carrier Call signs

DISCUSSION: Moderate to busy terminal facilities and en route sectors are experiencing an increasing problem with very similar sounding, 4-digit call signs with express carrier companies. Some carriers have been able to drop the first digit of the call sign when every flight number begins with the same first digit, but those carriers that use different banks of flight numbers cannot. The problem with these high concentrations of 4-digit call signs is frequent miscommunications due to the fact that all of the call signs look and sound somewhat alike. Example: SKY6845, SKW8845, SKW6885, SKW6485. Example: LOF8036, LOF8026, LOF8040, LFO8044. Example: TCF7744, TCF7444, TCF7774, TCF7770. Too often pilots reply to clearances intended for other aircraft due to the similar sounding call signs.

SUGGESTED ATPAC ACTION: There needs to be some encouragement by the FAA or the RAA/ATA to take into consideration the difficulties with communications with the concentration of similar sounding call signs nationwide. For the express carriers that have all of their flight numbers in the same "1,000 bank" of numbers, they should be required to drop the first digit for ATC purposes. This could be done in coordination with flight dispatchers. For those express carriers that have flight numbers in different banks or series of numbers, an option would be to replace the first 2 digits with a single letter at the end of the call sign. Example: SKW6845 would be SKW45G, SKW6485 would be SKW85H, SKW8885 would be SKW85G, etc. Assign a single letter to the first 2 number combinations in a flight number so that it is consistent nationwide. SKW6845 would be SKW45G just as COM6845 would be COM45G. Inconsistency between different carriers would b e very difficult to manage.

123 - Can a working group in the PARC address this? The DCPP (Pilot Controller Phraseology) subgroup may have human factors information or other input. (Contact is RNAV shop). CDM may also be another possibility for working the issue with AFS involvement.

124 - ATO-S will be queried to determine if sufficient human factors studies exist to warrant a recommendation through appropriate channels to request 3-digit call signs be utilized vice 4-digit. NASA also expressed concurrence with the AOC and the need for action. The committee will consider asking the CDM group to address this item.

125 - Due to insufficient time for the appropriate discussions this AOC will be further deferred until 126.

126 - This item was discussed and decided that further information gathering was appropriate.

127 - A memo will be written outlining this AOC and presented to ATO-T.

128 - The ATPAC recommendation memo was approved by consensus and will be submitted to ATO-T with Wilson's signature.

129 - A written recommendation was presented to Rich Jehlen for consideration of ATPAC's recommendations.

130 - A formal request will be made to ATO-T for action.

131 - The memorandum below was presented to ATO-T for their action that represented ATPAC's position.

The Air Traffic Procedures Advisory Committee (ATPAC) has identified a potential problem in the use of four-digit calls signs used primarily by Air Taxi operators at busy hub airports. These operators are generally in support of legacy carriers and therefore, in order to maintain schedule delivery integrity, operate in close time proximity and with air carrier peak times. This actual and increasing potential for error, in the committee's consensus, should be corrected to protect both aircraft and controllers.

ATPAC requests you initiate action to ensure this potential problem area is addressed. The committee recommends that this may be accomplished through coordination with the appropriate airlines and supported by an MBI in the form of Computer Based Instruction or an Air Traffic Bulletin to emphasize to ATC personnel.

RECOMMENDATION #1: FAA investigates solutions through appropriate channels.

RECOMMENDATION #2: Action should be initiated to investigate and remedy.

132 – ATO-T does not agree that this item is an issue. The Chairperson will write to ATA and RAA explaining the problem and invite their comment and participation in Mtg #133. Mr. Hartmann will check his database on call-sign confusion and email results to Ms. Rose

133 - Disagreement on this issue whether to pursue (from an ATO standpoint) or cancel the AOC because it is the opinion stated by Terminal that sufficient safeguards are currently in place to mitigate. Mr. Scott Foose spoke on his background and the issue.

Four Digit numbers are more common today. Anecdotally, confusion between controllers/pilots exists. He suggested ATPAC continue to raise awareness. He asked for recommendations to return to his members. Scott Casoni restated that Terminal does not need to change anything. Sabra Morgan asked for more quantifiable data prior to changing anything. Danny Aguerre-Bennett says this kind of data is not recordable. Sabra Morgan asked if this is systemic and not local. Larry Newman asked if the FAA could research this? Rich Jehlen asked "how can I capture this data?" *Harvey Hartmann will check his database on call sign-confusion and email results to Kerry Rose (search on "hear-back/read-back) (ASIAS, Aviation Safety Information Analysis and Sharing). Scott Casoni to check with Safety and ADS for data*.

134 - No change in status from Terminal. Harvey went through his database and mentioned some examples. EUROCONTROL is working with this issue presently. Harvey Hartmann (NASA) to send soft copy of *Similar Sounding Call Signs Report*. Kerry Rose (PDG) to find out from Human Factors on cognitive similarity.

135 - It was decided that Wilson Riggan would lead a group of ATPAC volunteers to include Bob Lamond in determining questions/study areas and/or issues that Human Factors would look at. These issues, questions would then be presented to the Agency's' Human Factors group to do a study.

136 – NASA and APA members stated Runway Safety has enlisted a Human Factors (HF) study on this issue and they will work on setting up a brief to ATPAC next meeting on the findings. This issue can be closed once the HF study is completed.

CURRENT STATUS: Open

ACTION ITEM: Briefing at next ATPAC on HF study.

AREA OF CONCERN 124-1

07/11/06

SAFETY: No

SUBJECT: Controller Identification of Aircraft Types

DISCUSSION: ALPA has received reports from pilots that indicate controllers are issuing traffic using a generic type of identifier such as "RJ" or "Regional Jet" as opposed to the phraseology required by FAAO 7110.65, Paragraph 2-4-21. ALPA further contends that due to the significant differences in these types of aircraft it is no longer practical to describe them in such generic terms as is being done in the NAS. With some "RJs" and/or "Regional Jets" carrying from 50 to over 100 passengers, the likelihood of misidentification of types when traffic is issued, increases and could create a hazard during many critical phases of flight such as visual approaches where one aircraft must visually identify the traffic to follow. It was felt that sufficient guidelines are available for controllers in 7110.65 but that a refresher of current issues may be helpful.

SUGGESTED ATPAC ACTION: ATPAC coordinate with ATO-T.

RECOMMENDATION #1: Mandatory training for controllers in the form of an Air Traffic Bulletin or other required training be accomplished to ensure this situation is brought to the attention of controllers and corrected.

125 - Due to insufficient time for the appropriate discussions this AOC will be further deferred until 126.

126 - After discussion it was determined that Steve Alogna will draft a recommendation for ATPAC to present to ATO-T for an MBI/ATB.

127 - Time constraints did not permit discussion of a proposed memorandum.

128 - The committee agreed on a memorandum for submission to ATO-R.

129 - A written recommendation was presented to Rich Jehlen for consideration of ATPAC's recommendations.

130 - A formal request will be made to ATO-T for action.

RECOMMENDATION: The following information be included in an MBI/ATB:

*F/ET The generic term "Regional Jet" of the early 90's was correctly described as a large corporate-sized airplane capable of carrying 50 passengers and powered by 2 engines that were usually stationed under the vertical stabilizer. The Bombardier CRJ-100 was such an airplane. As the need for a larger version of the "RJ" grew so did the airplane itself with other aircraft manufacturers making their own versions. For instance, the newest Bombardier RJ-900 has the same physical shape as the preceding "RJs" but is capable of seating over 85 passengers. The newest Embracer entry to this market is the E-195 with engines under the wings as on B737 and seating capacity from 108-122. As you can see issuing traffic on these variants leaves considerable room for interpretation by the pilot. Will the pilot receiving instructions for Visual Separation to follow the "RJ" pick the 50 passenger or the 122 passenger jet behind? Is this the one you want the receiving aircraft to sequence behind or is it the other "RJ?" The accurate identity of these various types of jets is becoming more confusing to the pilot and tower community alike.

It is the controller's responsibility to ensure the positive identification of traffic issued so the pilot may see and/or follow. The only way to make sure the traffic is the one that is intended is to issue the full type description of the traffic such as, " Embracer 195" or "Bombardier CRJ-100." When

you transmit, “Do you have it in sight?” or “ Follow the (blank),” be sure both you and the pilot are talking and looking for the correct airplane.

131 - ATO-R will present the memo below to ATO-T for their review.

The Air Traffic Procedures Advisory Committee has identified a potential problem in ATC phraseology and procedures. ATC at many locations when issuing clearance for Visual Approaches may provide relevant traffic information and instruct the aircraft to

“Follow” the designated traffic. The ATPAC Committee has been made aware that in some locations the traffic being issued is being limited to a description such as, “ Follow the RJ.” It is our opinion that this is an insufficient description owing to the large variety of “RJs” in the system and the likelihood for the aircraft issued Visual Approach clearance identifying and following an incorrect aircraft. These RJs may now range from King Air size to DC9 size and we feel that these types must be made clear to the following aircraft.

ATPAC requests you initiate action to ensure this potential problem area is addressed. The committee recommends that this may be accomplished through an MBI in the form of Computer Based Instruction or an Air Traffic Bulletin.

132 - ATB in process expected mid-September. Mr. Jehlen suggested that this AOC should be removed from the minutes and tracked separately to be returned when a resolution is available. This and other items will be removed from the minutes and returned on action dates submitted by the responding office.

133 - Not discussed at this meeting. Mr. Jehlen suggested that this AOC should be removed from the minutes and tracked separately to be returned when a resolution is available. This and other items will be removed from the minutes and returned on action dates submitted by the responding office.

134 - Scott Casoni distributed the following article to members. No discussion.

/*TER/ Even though controllers and pilots use the same language, sometimes there can still be misunderstandings. Perhaps it’s because they each have such different viewpoints. Tower controllers are working multiple aircraft and coordinating with coworkers in a complex, dynamic tower environment, while pilots try to get their aircraft out to the runway (or onto the ramp), concentrating on the physical operation of the aircraft and following their traffic.

This special Air Traffic Bulletin addresses one of the “best practices” that many controllers use when communicating with pilots. More specifically, when controllers fully describe “traffic” to pilots, it helps them find their traffic quickly while listening to control instructions.

FAAO 7110.65 Paragraph 3-8-1, Sequencing and Spacing, states that if air traffic controllers tell a pilot to follow traffic, they should give the *description and location* of that traffic. For example, if a controller is working at Oshkosh during Air Venture week, he/she would give *very* detailed descriptions of traffic in order to help pilots find the aircraft to follow in all the chaos: “Follow the blue-and-red biplane to your right,” or, “Follow the yellow tail-dragger ahead,” or, “Follow the silver Citabria on left base.” When there is a need for more description, the controller provides it. But, since most controllers will never wear that pink shirt, they usually avoid cluttering up frequencies with that much detail about traffic.

At most airports, when working air carriers or commuters, for instance, it is usually sufficient to say, “Follow the DC10 ahead,” or “Follow the Dash-8 off your right.” But imagine working at an air carrier or commuter *hub* airport. There are long lines of similar jets and commuter aircraft taxiing out for departure. When telling that fifth MD80 or the fourth regional jet to taxi out and join the mix, the pilot will appreciate some help in identifying their traffic.

Imagine being in the pilot's seat; it's easy to locate the traffic if the controller gives both the aircraft type and the name of the airline. A pilot can then look for a specific paint scheme and the characteristics of that particular aircraft. Not so easy if the controller uses generic terms like, "Follow the 737" or "Follow the regional jet" and there are several of each in view! As a controller working one of those situations where airplanes are everywhere, help pilots out by giving them more information: "Lear five Charlie Echo, runway 30, follow the United Express Embraer ahead and to your left, hold short of runway 25."

In a more general description, the FAAO 7110.65, Paragraph 3-7-2, Taxi and Ground Movement Operations, shows controller phraseology examples for use on the airport surface. It doesn't specifically say that a controller has to give the company name or the aircraft type in the example, it just says to provide "(*traffic*)." In a little more detail, Paragraph 3-1-6b, Traffic Information, states, "Describe the relative position of traffic in an easy to understand manner, such as 'to your right' or 'ahead of you.'" Here, an example is provided: "Traffic, U.S. Air MD-Eighty on downwind leg to your left." This phraseology gives a pilot two specific things to look for—the red-white-and blue colors of US Airways, and the shape of the long MD-80 fuselage. And in very clear detail, Paragraph 2-4-21, Description of Aircraft, further clarifies what is expected. It states, "Manufacturer's model or designator." Phraseology examples are as follows: "L-Ten-Eleven, American MD-Eighty, Seven Thirty-Seven and Boeing Seven Fifty-Seven."

The term "regional jets" is commonly used. It used to be that everyone knew that a *regional jet* was made by Canadair, the aircraft identification was CARJ and they all looked alike. Not anymore! These smaller jets generally seat less than seventy-one passengers; they can look very different and be configured for a wide range of passenger loads. They are now made by several different companies, among them Embraer, Canadair/Bombardier, and Dornier, and all have different aircraft type designators. Stretch versions holding more than seventy-one passengers will further blur the line between "regional jets" and other air carrier aircraft.

These smaller jets can also have widely differing performance characteristics. Some fit right in the flows with the larger jet aircraft. Others have various ranges of performance differences in the climb-out phase, at altitude, and in descent. These differences require that controllers learn what to expect from each aircraft type. As more companies continue to upgrade their fleets from turboprops to regional jets, system capacity will be affected as jet routes get filled up and turboprop routes go unused.

One thing can always be counted on in air traffic control: *things will change*. As more and different regional jet aircraft join the air carrier and commuter fleets, more instances of different regional jet aircraft types wearing the same company markings are likely to be seen. Remember: it is good practice to describe "traffic" to pilots using both company name and actual aircraft type.

135 -Terminal reported that they had not received any comments on their proposed Mandatory Briefing Item (MBI) and would be sending it out hopefully by Friday, May 8th. This will be deferred until ATPAC #136 to verify that it has been completed.

136 - ATB published and on the web.

CURRENT STATUS: Closed

AREA OF CONCERN 125-2

10/24/06

SAFETY: No

SUBJECT: Gear down Advisory

DISCUSSION: Representatives from AOPA, Navy, and Air Force advocated the safety aspects of the advisory and that despite occurrences at non-towered airports it was felt that the value of the advisory would carry-over from towered airports. The discussion questioned the cost-benefits and the specifics of gear-up landings. In addition, discussions centered on FAA liability, pilot responsibility, and the problems with change. Air Force and Navy reps that use the procedure were unanimous in that this is a good procedure. FAA (ATO-T) and NATCA think this is a bad idea. FAAH 7110.65, Para 2-1-24 states that the reminder does not put any responsibility on the controllers—it is still a pilot responsibility.

SUGGESTED ATPAC ACTION: Members were asked to accumulate qualitative and quantitative evidence that this is in fact an issue in the NAS.

RECOMMENDATION: Wait for further definitive information and discuss at 126.

126 - Discussion regarding where further definitive data may be obtained to support an ATPAC recommendation.

127 - The committee agreed that further information was needed.

128 - It was agreed that sufficient information existed to suggest FAA take action to investigate and to mitigate the occurrences of wheels up landings by including phraseology for FAA controllers as the military. Possible exceptions might be for major air carrier airports or exempting Part 121 and 135 operations.

129 - It was decided that the current information is not sufficient to submit for a change in the 7110.65, 7210.3, or AIM therefore Heidi Williams agreed to coordinate with Don Frenya/Kerry Williams to develop a strategy and document to support the argument for this recommendation.

130 - A formal request will be made to ATO-T for action.

131 - ATO-T has action memorandum with ATPAC recommendation as listed below.

> *The Air Traffic Procedures Advisory Committee (ATPAC) has identified a potential problem in the frequency of occurrence of wheels up landings primarily in the general aviation community. Our initial information gained from NASA ASRS reports and from AOPA indicates this may be an item that a change if FAA procedures could help mitigate.*
>
> *ATPAC requests you initiate action to investigate the possibility of changing FAA Order 7110.65, Chapter, paragraph 2-1-24, Wheels Down Check, to apply to FAA controllers as well as military. The committee has discussed this issue extensively and is of the opinion that significant savings in monetary losses to aircraft and personal injuries to aircrews and passengers may be prevented at towered airports. Also discussed was the advisability of permitting the exemption of this potential change of rules, for example,*
>
> *At airports where the primary traffic is multi-pilot aircraft, FAR Part 121 or 135, and minimally servicing to general aviation.*

132 - Terminal does not feel it is necessary to change the procedure. The item needs more data to change. IOU for team members Danny Aguerre-Bennett, Pete Lehman, Bruce McGray, Harvey

Hartmann, and Scott Casoni to answer how often wheels up landings happen and where (percentage). Team to send details to Scott Casoni.

133 - Kerry Rose confirmed that Terminal does not feel necessary to change the procedure. They need more data (from Pete Lehman, AOPA) to change. Empirical data (instances, segment, locations) will be tough to obtain (or prove). Rich Jehlen said we can't close this without AOPA present (covered in morning before Pete Lehmen present). Pete provided raw data. *Harvey Hartman and Scott Casoni for further data collection.*

134 - Terminal provided a non-concur and wants to close the AOC. Pete Lehman (AOPA) to bring IOU deferred from Meeting #133 to Meeting #135.

135 - Clair Kultgen deferred this to ATPAC #136 since she is new to the team and would like to familiarize herself with this topic by doing some research.

136 - AOPA agreed to close item and will continue to educate their members.

CURRENT STATUS: Closed

AREA OF CONCERN 125-4

10/24/06

SAFETY: No

SUBJECT: Confusion on Descent during Non-Precision Approaches

DISCUSSION: Discussion was primarily concerning possible misunderstandings when the pilot was not given definitive altitude guidance in relation to a published segment of a non-precision approach.

SUGGESTED ATPAC ACTION: Obtain clarification of the question and collect data regarding this issue. Tom Barclay, NASA ASRS, will provide data for dissemination and further discussion at 126.

126 - Discussion with visitor Jeff Williams concluded that a fix on the published approach must be utilized and in the aircraft database. Steve Alogna will obtain data on recurrent training for controllers regarding IAP and report at 127.

127 - This item was not discussed due to insufficient time.

128 - This item was not discussed due to insufficient time.

129 - ATPAC discussion highlighted the incomplete information available to pilots on charts for IFR approaches when a defined point for descent is unclear and not fully understood by the pilot/controller communities.

130 - Discussions with ATO-T found that recurrent training is available for terminal controllers regarding approaches and that according to the .65 the controller in the Naples incident complied with the requirements regarding instructions to maintain a safe altitude until "established." Therefore, further discussion will be needed to determine if this AOC meets the charter's criteria for continued efforts or does not rise to the level of being a pilot education issue or having implications in the entire NAS.

131 - Discussion concluded that this item did in fact rise to a systemic issue that deserved to be addressed in an MBI for controllers and pilot education regarding approaches to airports with non-precision approaches.

> **RECOMMENDATION:** ATPAC recommends an MBI designed to clarify controller responsibility when issuing approach clearances at airports with non-precision approaches and the importance of accurate altitude information.

132 - ATB to be conducted and SO if possible. Mr. McGray will check special emphasis items for next cycle and get data related to this issue. Mr. Casoni will obtain copy of ATB for committee's review.

133 - ATB to be conducted and SO, MBI if possible. Scott Casoni says it is still being reviewed by the manager but will be finalized by next meeting. Mr. McGray recommends better wording in the AIM and Instrument Procedures Handbook (emphasis on pilot responsibilities). *Scott Casoni will obtain copy of ATB for committee's review.* After everyone reads by next meeting then this item can close.

134 - Mr. Casoni from Terminal talked about a training issue and no mandatory briefing item (MBI) should be pursued. Terminal worked on the MBI and decided not to proceed. Harvey Hartmann says that Terminal and Enroute do not participate in telecons pertaining to this item. Scott Casoni to readdress "maintain altitude" issue with Terminal. Harvey Hartmann (NASA) and Scott Casoni (Terminal) to draft problem package to redefine this issue.

135 - It was suggested that Terminal would put out training regarding this issue, but Terminal ended up deciding not to. A group consisting of Mark Cato, Bruce McGray, Claire Kultgen, and Andy Brand took an action to write up a definition of what is meant by "established on approach" and also

"established in hold". Mike Frank from terminal took the action to investigate if the current phraseology is being complied with by the controllers and will return to the next meeting with a proposal if a training initiative is needed. Harvey Hartmann will send out all pertinent info that he has on this AOC to Mike Frank and the group.

136 – Part 1 –AJT-22 stated that in ASRS provided, pilots stated they started descent too soon. There were no reports in ATSAP on this issue. It. has been decided that additional training is not needed.

Part 2 – AFS-400 shared some definitions of what is meant by "established on approach," "established in hold" and "cleared for approach." These were well received as it was mentioned this is the first time that they had actually seen them written out. AFS-400 mentioned that some of these are "lost" or embedded in the 91.175. They also recommended that the FAA adopt the ICAO definition for "approach" since FAA has none.

A question was asked if pilots understand what "published segments" means. There appears to be a need to send out information for educational purposes. AJT-22 added that they also may need an Air Traffic Bulletin or Mandatory Briefing Item ATB/MBI to controllers; for example, if vectoring at MVA, A/C can not turn on approach if they are below altitude of approach segment.

CURRENT STATUS: Part 1 – Closed. AJT-22 will not put out training this is not a systemic issue.
Part 2 – Deferred until ATPAC #140

ACTION ITEM: Part 2 - Three DCPs will be generated with the Change Initiator being Executive Director of ATPAC. They will define "establish on approach," "what constitute segment of approach," and "establish in holding." APA provided following definitions: "Unpublished route," "transition segment," "approach segment" and "published segment." RNP has to be considered when discussing approaches and impact reference these changes. Currently waiting for updated changes from AFS-400.

AREA OF CONCERN 126-2

01/09/07

SAFETY: No

SUBJECT: Procedures for Use of Time to Meet Restrictions

DISCUSSION: The committee looked at current regulations that mandate the controller must issue the clock time to the restricted aircraft and the time the aircraft must comply with the given restriction.

128 - The committee discussed the AOC with its submitter**,** Mr. Bill Holtzman from ZDC. The discussion centered around the need for a time hack when issuing a time based restriction. It was agreed that no change would be appropriate in the oceanic or non-radar environs but that omission of the additional verbiage in a radar environment would reduce controller transmissions, pilot misunderstandings, and add clarity.

129 - David Young advised that several versions of proposed DCPs have been presented to his management for their consideration.

130 - David Young's organization would not concur on ATPAC recommendation based on what may have been incomplete information. David Young will re-address the issue based on ATPAC feedback and report at #131.

131 - A memo will be written and addressed to ATO-E for their review that outlines the committee's recommendation.

RECOMMENDATION: ATPAC opined that giving the aircraft a time to reach/leave an altitude followed by the minutes needed to achieve would suffice and not complicating the issue with clock time.

ATPAC RECOMMENDATION TO ATO-E REGARDING PROCEDURES FOR USE OF TIME TO MEET RESTRICTIONS. ATPAC AREA OF CONCERN (AOC) 126-2.

First, the committee would like to address some of the misconceptions about this proposal. Arguments have been heard about whether or not it is reliable control technique to use computer-generated, predictive "vector lines" to evaluate the time till routes cross. Similarly, arguments have been heard about whether it is employing "positive control" at all to issue an altitude crossing restriction which might in any way seem close to the capability of the aircraft. While we think of those situations more in a climb situation than a descent, similar risks exist in both. The Committee makes no effort to insert itself into the evaluation of how one might "ensure" positive control in such a situation. It is a moot point to consider those issues anyway, based on the fact that there is already such a clearance provided for in the 7110.65.

Also, it is important to note that the above arguments exist without regard to the verbiage one uses with which to refer to the clearance limit time by which we instruct the aircraft to achieve the required altitude. Those arguments apply as surely with our current phraseology as they would with that which is proposed. There is no additional control inherent in one description of a time event over that inherent in any other way of describing that same time.

Separately and distinct from the above issues, the Committee chooses to address the situation of how to describe it once the decision has been made to clear an aircraft to achieve an altitude by a particular moment in time. Such a moment can be described in a number of ways, two of which are: referring to a specific time on the controller's clock on the one hand ("Climb to reach FL350 by

1525Z; time now 1522 and three quarters"), and on the other hand, referring to the passage of a specific period of time after a radio transmission ("Climb to reach FL 350 in two minutes").

The Committee believes that the benefits of the proposed version of a time description include: eliminating the need for UTC references, eliminating the excess verbiage created by the time check, and eliminating the mental math required on the part of the controller in order to compute the time limit and on the part of the pilot in order to evaluate, then record and/or remember the difference between the airplane's clock and the controller's clock and to continue to apply that difference for the length of time it takes to achieve the altitude. The proposed phraseology would provide additional accuracy by replacing the relatively coarse units of a quarter minute with the accuracy with which one can read a sweep second hand (which is required equipment on all IFR aircraft).

The Committee also wishes to note that the proposed time description is already in relatively common use in the field, despite its variance from the currently-prescribed phraseology. Thus the proposed phraseology is, much to the chagrin of some, well-tested. While never valid as a reason to approve an idea, the fact that it has been in use already for a long time has provided an opportunity to uncover unanticipated problems. The Committee was not able to identify any.

Committee Recommendation: ATPAC recommends that the phraseology change in this proposal would be a positive one which would improve the precision of a control clearance, reduce the verbiage necessary to issue the clearance, make it easier for the controller to describe to the pilot, and make compliance easier for the pilot, both in understanding and in its accomplishment.

132 - ATO-R will be invited to brief at Mtg #133

133 - This issue will be addressed pending staffing increases in the PDG.

134 - The following was provided by En Route prior to the meeting: "The initial DCP for this should be written in the next two weeks." Kerry Rose (PDG) to provide completed DCP or update.

135 - Not discussed at this meeting. Update provided by Don Kemp prior to meeting and sent out in Pre-read – Preliminary DCPs have been written to change FAAO JO 7110.65 paragraph 4-5-7, AIM Paragraph 4-4-10, Adherence to Clearance, and AIP Paragraph ENR 1.1- 31, Adherence to Clearance. These changes have been sent to En Route SOS for review and approval before being sent out for comment. Research is also being done on the ICAO differences in Document 4444. Estimated publication change in the FAAO JO 7110.65, AIM, and AIP is February 11, 2010.

136 - Not discussed at this meeting. Update provided by AJR before meeting and sent out in Pre-read briefing – En Route SOS (AJE-31) is still making revisions to the proposed change. Estimated publication of change in FAA Order JO 7110.65, AIM, and AIP has been pushed back until July 29, 2010.

CURRENT STATUS: Deferred to ATPAC #140

ACTION ITEM: AJR will submit changes to the FAA Order JO 7110.65, AIM, and AIP to incorporate appropriate recommendations.

AREA OF CONCERN 131-1

03/19/08

SAFETY: No

SUBJECT: AFSS Pre-Flight Briefing on SUA

DISCUSSION: This AOC was submitted by AOPA. The contention is that AFSS specialists are only required to provide pilots with a briefing on SUA "Upon request." AOPA suggests that this be changed to a requirement for specialists to provide this information without request and that it be made a mandatory briefing item for flight plan filing. The committee's discussion regarding this proposal was that of the increased workload for AFSS specialists and the actual number of pilots that did not want the information versus those that may have violated SUA because the information was not given. ATPAC agreed to make this suggestion an AOC for tracking purposes and that AOPA would attempt to obtain more definitive information on justification and provide supporting data

SUGGESTED ATPAC ACTION: None

RECOMMENDATION: AOPA will gather data regarding this AOC and present it at #132 for further committee consideration.

132 - The committee could not determine if this is systemic or an individual issue. Mr. Lehman will research for more quantifiable data.

133 - Alan Wilkes spoke about unpublished airspace issues. First, convert all special use info into NOTAM D format. Second, changes to software using FS21 system (Alaska, Oasis) for tags to specific flights. No date of completion. Possibly issue "pointer NOTAMs." Require briefer to ask pilot if he needs more info on special use airspace. Glenn Morse asked about "being tied to a route" asked Alan for clarification. OASIS is almost complete in Alaska for any route (50 mile radius). LMT has some more items to complete. Pete Lehmen is still concerned about pilots not receiving data on SUA. He wants at the beginning of the brief to include info on unpublished and published SUA. What places are Pete Lehmen talking about specifically? Confusion for published and unpublished SUA, review the phraseology for accuracy. *Alan Wilkes will bring this up at the Flight Service meeting and report at Meeting #134.*

134 - A response from Flight Services was issued in the Pre-read package, and therefore, this issue was not discussed at length during the meeting. Pete Lehman (AOPA) needs to put together a problem definition. As reported by Alan Wilkes (submitted prior to meeting):

> I met with the Flight Services Safety and Operations Support Group on November 13, 2008 to discuss the proposal that published Special Use Airspace information be included as mandatory briefing items in a standard weather briefing.
>
> Flight Services remains opposed to the proposal as their contention is that published data (whether it be SUA, airport information, flight procedures or any other information related to flight) remains the responsibility of the pilot. Including published data as a mandatory briefing item is contradictory to the purpose of the
>
> US. NOTAMs system, where published data is amended and updated by notices to airmen, which are already mandatory briefing items. There is also a concern about the increased workload that would be placed on the briefer. There are so many sources where published SUA data can be found, for a briefer to go through each source for every briefing would be an unreasonable increase in workload and extend briefing times beyond acceptable levels. Flight Services also indicated there could be liability and possibly contractual issues involved as well.

FAA has recently undertaken several steps to ensure safety of flight in the vicinity of Special Use Airspace. All unpublished MOA, Alert Area and Warning Area data is now NOTAM D criteria. Restricted Area and Aerial Refueling NOTAMs continue to be mandatory briefing items; other types of SUA information are still "upon request" and will remain so until such time the flight services systems can be modified to link SUA information to the route of flight. At that time policy will be modified to make all NOTAMS pertaining to unpublished SUA activity mandatory for briefing.

Flight Services is, however, sympathetic to AOPA's concern that pilots may not be getting published SUA data that could be pertinent to their flight. As indicated in paragraph 3-2-1 of FAA Order 7110.10, Flight Services, published SUA information remains as "upon request" briefing item, meaning that a pilot can get up to date SUA info by requesting it from the briefer. Flight Services has offered to strengthen the language in the Aeronautical Information Manual to heighten awareness among pilots that published SUA information must be requested. Flight Services would also be willing to work with the publishers of SUA data to include a statement, in an easily noticeable place in the publication that SUA data may be updated periodically and pilots should contact a flight service station for NOTAMS concerning Special Use Airspace.

Alan Wilkes
Procedures Development Group

135 - Update provided by Don Kemp prior to meeting and sent out in Pre-read – Memo received from Chief Counsel's office on agency liability issues with proposal. At meeting Clair Kultgen asked that this issue be deferred to ATPAC #136 since she is new to the team and would like to familiarize herself with this topic by doing some research.

136 - Specific issue between AFSS and AOPA. AOPA will address this issue in a different forum and continue to educate their members.

CURRENT STATUS: Closed.

AREA OF CONCERN 136-1

10/07/09

SAFETY: No

SUBJECT: Ambiguity on pilot actions during windshear conditions

DISCUSSION: APA stated that an issue in MCO showed the ambiguity on what exactly a pilot will do in known/forecasted windshear conditions. Much like a TCAS alert, the A/C will take no other control instructions when they are in a windshear alert “escape” maneuver other than what they feel necessary to get themselves out of the situation. Once they are out of the situation, they can then continue to follow control instructions. Apparently, this is not understood by controllers who expect the A/C to execute either the published missed approach or follow their control instructions. There was a suggestion to add phraseology to FAA Order JO 7110.65 to emphasize the pilot's urgency when escaping a windshear event. They would state "windshear recovery" as opposed to “go-around.”

CURRENT STATUS: Open

ACTION ITEM: AJT to look at this problem and see if it needs to be addressed in the applicable Orders similar to a TCAS alert.